

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) A method of configuring a memory controller, said memory controller having a plurality of input/output pins, wherein at least one of said pins has selectable functionality, said method comprising:

informing said memory controller of a type of memory; and

configuring at least one of said pins having said selectable functionality to have a functionality in accordance with said type of memory, wherein functionalities selectable for said configuring include a chip select function and a clock function.

2. (original) The method of claim 1 wherein said type of memory is a buffered memory.

3. (original) The method of claim 1 wherein said type of memory is an unbuffered memory.

4. (original) The method of claim 1 wherein said configuring comprises configuring said functionality of said pin to a clock signal function.

5. (original) The method of claim 4 wherein said clock signal function is a differential clock signal function.

6. (original) The method of claim 1 wherein said configuring comprises configuring said functionality of said pin to a chip select signal function.

7. (original) The method of claim 1 wherein said functionality of said pin is one of a chip select signal and a clock signal.

8. (previously presented) A method of providing more than one function for an output pin of a memory controller, said method comprising:

providing a clock signal within said memory controller;

providing a chip select signal within said memory controller;

selecting within said memory controller one of said clock signal and said chip select signal based on a type of memory; and

coupling said selected signal to said output pin.

9. (original) The method of claim 8 wherein said type of memory is a buffered memory.

10. (original) The method of claim 8 wherein said type of memory is an unbuffered memory.

11. (original) The method of claim 8 wherein said clock signal is a differential clock signal.

12. (canceled)

13. (previously presented) A memory controller comprising:

- an output pin;
- a multiplexer having two inputs, a control input, and an output coupled to said output pin;
- a chip select signal coupled to one of said two inputs;
- a clock signal coupled to the other one of said two inputs; and
- a control signal coupled to said control input that selects one of said chip select signal and said clock signal based on a type of memory.

14. (original) The memory controller of claim 13 wherein said type of memory is a buffered memory.

15. (original) The memory controller of claim 13 wherein said type of memory is an unbuffered memory.

16. (canceled)

17. (previously presented) The memory controller of claim 13 wherein said clock signal is a differential clock signal.

Claims 18-22. (canceled)

23. (previously presented) A memory controller comprising:

- an output pin; and
- circuitry coupled to said output pin that provides said output pin with a function selected in

accordance with a type of memory, said circuitry operative to select one of at least a chip select function and a clock function.

24. (previously presented) The memory controller of claim 23 wherein selection of the chip select function provides a chip select signal to said output pin; and
wherein selection of the clock function provides a clock signal to said output pin.

25. (previously presented) A memory circuit comprising:

a plurality of memory modules, said memory modules being of at least one type; and

a memory controller coupled to said memory modules via a plurality of pins, at least one of said pins having a selectable functionality based on said type of said memory modules, said memory controller operative to select a chip select function and a clock function for each of said at least one of said pins having the selectable functionality.

26. (previously presented) The memory circuit of claim 25 wherein selection of the clock function provides a clock signal.

27. (currently amended) The memory circuit of claim 25 wherein selection of the ~~clock~~ chip select function provides a chip select signal.

28. (previously presented) A computer system comprising:

a central processing unit;

a memory controller coupled to said central processing unit, said memory controller having a plurality of input/output pins; and

a plurality of memory modules of at least one type coupled to said memory controller via said pins; wherein:

each one of a subset of said pins has selectable functionality, said selectable functionality based on said type of said memory modules, said selectable functionality including a chip select function and a clock function.

29. (currently amended) The computer system of claim 28 wherein ~~said selectable functionality is~~ selection of the clock function provides a clock function signal.

30. (currently amended) The computer system of claim 28 wherein ~~said selectable functionality is~~ selection of the chip select function provides a chip select function signal.

31. (previously presented) Apparatus for configuring a memory controller, said memory controller having a plurality of input/output pins, said apparatus comprising:

means for informing said memory controller of a type of memory; and

means for configuring at least one pin of said memory controller to have a functionality in accordance with said type of memory, each of said at least one pin configurable by said means for configuring having selectable functionality including a chip select function and a clock function.

32. (previously presented) Apparatus for providing more than one function for an output pin of a memory controller, said apparatus comprising:

means for providing a clock signal within said memory controller;

means for providing a chip select signal within said memory controller;

means for selecting within said memory controller one of said clock signal and said chip select signal based on a type of memory; and

means for coupling said selected signal to said output pin.

33. (previously presented) A memory controller comprising:

an output pin;

multiplexer means for outputting one of at least two signals to said output pin;

signal means for selecting a chip, said signal means for selecting coupled to said multiplexer means;

clock signal means coupled to said multiplexer means; and

means coupled to said multiplexer means for selecting one of said signal means for selecting and said clock signal means based on a type of memory.

34. (previously presented) A memory controller comprising:

an output pin;

multiplexer means having two inputs, a control input, and an output coupled to said output pin;

a clock signal coupled to one of said two inputs;

a chip select signal coupled to the other one of said two inputs; and

means coupled to said control input for selecting one of said clock signal and said chip select signal based on a type of memory.

35. (previously presented) A memory controller comprising:

an output pin; and

means for providing said output pin with selectable functionality in accordance with a type of memory, said selectable functionality including a chip select function and a clock function.

36. (previously presented) A memory circuit comprising:

a plurality of memory modules, said memory modules being of at least one type; and

memory controller means coupled to said memory modules via input/output means, one of said input/output means having a selectable functionality based on said type of said memory modules, said selectable functionality including a chip select function and a clock function.

37. (previously presented) A computer system comprising:

central processing means;

memory controller means coupled to said central processing means, said memory controller means having a plurality of input/output means;

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a plurality of memory modules of at least one type coupled to said memory controller means via said input/output means; wherein:

each one of a subset of said input/output means has selectable functionality, said selectable functionality based on said type of said memory modules and including a chip select function and a clock function.